

REMARKS

Claims 1 and 3-10 are in the application.

Reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. 103(a) as being unpatentable over the Japanese reference '364 and further in view of Behrends, are respectfully requested.

As a result of the foregoing amendment, claim 1 has been amended to distinguish over the art of record.

Specifically, it has been made clear that the dummy bar according to the present invention is for a continuous casting plant for preliminary steel sections having an I-shape or H-shape. Support for this amendment can be found in the first paragraph on page 11 of the application.

In addition, it has been made clear that continuous flexible spring steel bands are used. This feature can be readily seen in the drawing of the present application.

Moreover, it has been made clear that each flexible spring steel band is located on an inner side of a curved portion of the

dummy bar and on an outer side of the row of segments. Support for this amendment can be found in the last paragraph on page 4 of the specification.

Accordingly, no new matter has been added to the claims.

Applicants respectfully submit that the arguments presented on page 6 of the last amendment are still applicable.

However, the following comments are to be added.

The reference to Behrends does not discuss the special properties of the very short "planar spines 40". These spines are only "flexible". They are flexible because of their short length, which results in a plurality of "flexible spines 40". Consequently, Behrends is not comparable to claim 1 of the present application, as acknowledged in the office action.

However, the large number of flexible plates which exclusively produce the articulation constitute a disadvantage. The articulation with as little friction as possible is necessary in order to carry out the curvature of the dummy bar, which in Behrends is pulled through the rollers 28, is effected with as little force application as possible. However, this configuration

requires high investment costs and the assembly is time consuming. It is of particular significance that a large number of joints and the slightly curved shape of the flexible elements results in a disadvantageous high friction. The flexibility of the single-strand dummy bar can be increased, however, no forces act against the bending force of the strand, so that the high friction occurs and a high pulling force is required.

A combination of the reference to Behrends with the Japanese reference will not result in the present invention as claimed because the Japanese reference is only directed to a common dummy bar for casting twin blooms.

Claim 1 of the present application does recite two rows of segments connected to the head piece. Two rows are also provided for the twin blooms of the Japanese reference, wherein the two rows extend parallel to each. However, in the Japanese reference the two rows are connected transversely by a plurality of plates 2, as shown in Figs. 1, 2 and 4 of the reference. This produces a large number of joints with all the disadvantages recited above. The plates 2 are rigid. The actual joints are formed by the outwardly located "link-shaped bodies". These bodies can only form a "joint" when an appropriate plate is provided in the longitudinal direction. In other words, the play in the joint in the

longitudinal direction results in a continuous elongation of the dummy bar. It could be stated that this play of the joint could be compensated by the features of the reference to Behrends. However, a combination of these two references would result in a very complicated solution composed of a large number of structural components for effecting the bending, straightening and pulling forces which must be applied to the dummy bar when the preliminary steel section is pulled out.

In contrast, the dummy bar according to the present invention is far superior. The two rows of articulated elements of the Japanese reference can only be held together by the large number of flexible spines 40 of Behrends for effecting a curvature. This means that there is a large number of fastening points, i.e., at least two for each "planar spine 40". This makes the construction very rigid and counteracts the articulation.

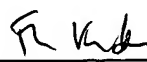
The situation in claim 1 of the present application is entirely different. The segments of the rows of segments on each side are held together by a single continuous flexible spring steel band. Accordingly, the articulation is effected by the spring steel band. As set forth in claim 1, the spring steel band is located on the inner side of a curved portion of the dummy bar and on the outer side of the row of segments.

These two spring steel bands reduce the bending work which has to be performed. This results in a guidance without play which is not disclosed by either of the two references relied on by the Examiner.

Therefore, in view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Any additional fees or charges required at this time in connection with the application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.


Respectfully submitted,
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Dated: July 24, 2003

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D. C. 20231, on July 24, 2003

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